

Appln No. 10/667,076

Amdt date: May 25, 2007

Reply to Office action of November 30, 2006

REMARKS/ARGUMENTS

Claims 1-2 and 4-21 are in the application. Claims 1, 10, 14, and 19 have been amended. Claims 3 and 22 have been cancelled. The Applicants respectfully request reconsideration and allowance of the application in view of the amendment and the following remarks.

Claims 1, 6, 9, 10, 15 and 18 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Nemser (US 6221247). Claims 4, 5, 7, 8, 13, 14, 16, 17, 19 and 21 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nemser. Claims 2, 12 and 20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nemser in view of Shettigar (US 5464535). Claims 3 and 22 are rejected under U.S.C. § 103(a) as allegedly being unpatentable over Nemser in view of Goddard (US 5468388). Claims 10 and 11 are rejected under U.S.C. § 103(a) as allegedly being unpatentable over Nemser in view of Chappelle (US 4385113). The above rejections are respectfully traversed.

In addition, the Applicants have amended claim 1 to better set forth the subject matter being claimed and to recite the limitations of now-cancelled claim 3. Also, to expedite allowance, the recitation of "a pressure relief valve" has been further amended to now recite a "liquid pressure relief value" (underlining added for emphasis).

In more detail, amended claim 1 recites (underlining added for emphasis):

An apparatus for isolating a microorganism from a liquid, the apparatus comprising:

a first endcap engageable with an inlet end of a hollow fibre filter, the first endcap including a first passage having an inlet engageable with a liquid input conduit, and an outlet into the filter; and

a second endcap engageable with an outlet end of the hollow fibre filter, the second endcap including a second passage having an outlet engageable with a liquid return conduit, and an inlet from the filter;

the first passage and the second passage being independently sized such that in conjunction with a flow restriction means which restricts a flow of the liquid through the second passage, a predetermined exit liquid flow rate from at least one permeate outlet of the filter is achieved;

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the microorganism is captured within the hollow fibre filter; and

the maximum working pressure of the hollow fibre filter is not exceeded,

wherein the liquid is a finite liquid sample supply and the first endcap further comprises a liquid pressure relief valve, wherein the liquid pressure relief valve provides a fluid pathway from the inlet end of the filter to the finite liquid sample supply when the liquid pressure applied to the filter approaches the maximum working pressure of the filter such that the maximum working pressure of the filter is not exceeded.

Accordingly, the Applicants submit that the invention as claimed in claim 1 is neither described in nor suggested by the cited references.

In paragraph 4 of the Office action, the Examiner rejected the limitations in cancelled claim 3 (amended now into claim 1) as being obvious over the combination of Nemser and Goddard because the Examiner asserts that "it would have been obvious to ensure that the pressure relief valve disclosed by Nemser is provided on the first end cap." The Applicants respectfully disagree with this assertion because the relief valves in each of Nemser and Goddard are structurally and functionally different and indeed they serve different purposes.

That is, Nemser and Goddard cannot be combined because the pressure relief valve of Goddard is a gas pressure relief valve and not a liquid pressure relief valve as is disclosed in Nemser and recited in amended claim 1 of the present application.

Furthermore, the pressure relief valve of Goddard cannot function as a liquid pressure relief valve as the pressure relief valve is specifically described in Goddard as incorporating a hydrophobic membrane 10, the membrane functioning so as to be permeable to gas but not to liquid. See column 2, lines 13-18 of Goddard.

Accordingly, the Applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to amended claim 1 because the relief valves in each of Nemser and Goddard are structurally and functionally different and indeed they serve different purposes.

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Also, by its teaching of the incorporation of the hydrophobic membrane 10 in its pressure relief valve, Goddard may actually teach away from a liquid pressure relief valve as is recited in Claim 1.

To expedite allowance and to better set forth the claimed subject matter, independent claim 10 has been amended to now recite (underlining added for emphasis):

A method for isolating a microorganism from a liquid, the method comprising the step of:

(i) capturing and concentrating the microorganism on a hollow fibre filter by passing a sample of the liquid through the hollow fibre filter, the hollow fibre filter having a first endcap engaged with the inlet end of a hollow fibre filter and a second endcap engageable with the outlet end of the hollow fibre filter, the first endcap including a first passage having an inlet engageable with a liquid input conduit, and an outlet into the filter so as to provide a fluid pathway between the filter and a liquid input conduit, and the second endcap including a second passage having an outlet engageable with a liquid return conduit, and an inlet from the filter so as to provide a fluid pathway between the filter and a liquid return conduit;

wherein the size of the first passage and the size of the second passage have been predetermined such that upon restriction of liquid flow rate through the liquid return conduit, a predetermined exit liquid flow rate from at least one permeate outlet of the hollow fibre filter is achieved; and

the pressure of the liquid passed through the hollow fibre filter is less than the maximum working pressure of the hollow fibre filter, and

(ii) providing a liquid pressure relief valve to the first endcap, wherein the liquid pressure relief valve provides a fluid pathway from the first passage to atmosphere.

As such, the Applicants submit that claim 10 should be allowable for reasons substantially the same as claim 1.

Independent claim 19 has been amended to better set forth the subject matter being claimed and to recite the limitations of now-cancelled claim 22. Moreover to expedite allowance, the recitation of "a pressure relief valve" has been further amended to now recite a

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"liquid pressure relief value" (underlining added for emphasis). As such, claim 19 should be allowable for reasons substantially the same as claim 1.

Dependent claims 2 and 4-9 depend from claim 1, dependent claims 11-18 depend from claim 10, and dependent claims 20-21 dependent from claim 19. In addition, claim 14 have been amended to correct a minor clerical error (i.e., have been amended to add the recitation "wherein the predetermined exit liquid flow rate is about 1.5 l/min"). As such, these dependent claims incorporate all the terms and limitations of claims 1, 10, or 19 in addition to other limitations, which together further patentably distinguish these claims over the cited references. Therefore, these dependent claims should also now be allowable.

In view of the foregoing, the Applicants respectfully submit that Claims 1-2 and 4-21 are in condition for allowance. Reconsideration and withdrawal of the rejections are respectfully requested, and a timely Notice of Allowability is earnestly solicited. If there are any remaining issues that can be addressed over the telephone, the Examiner is encouraged to call the Applicants' attorney at the number listed below.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By 
Peter C. Hsueh
Reg. No. 45,574
626/795-9900

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